Please amend claims 25-27, 31-35, and 37-38 by adding the underlined sections and deleting the sections in brackets ([ ]).

25. (Amended) An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, two power cylinder inlet ports communicating between said cylinder and a source of air, and an exhaust port through which exhausted gases are expelled from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each [intake] inlet port;

an exhaust valve selectively occluding said exhaust port;

at least one compressor in fluid communication via a conduit between said source of air and at least one power cylinder inlet port;

at least one air cooler interconnected between said compressor and said inlet port;

means for [selectively] controlling operation of said compressor and said intake valves and for [selectively] controlling [the] air charge characteristics selected from one or more of turbulence, density, pressure, temperature, and the mean and peak pressure within said cylinder [whereby at least part of the intake air can be selectively compressed by the compressor prior to entering the cylinder]; and

means for directing low pressure air to a first inlet port during the intake stroke of the piston and for directing air highly compressed by a compressor to a second inlet port after said piston has passed bottom dead center and has begun the compression stroke.

26. (Amended) The engine of Claim 25, wherein said means for [selectively] controlling comprise a common plurality of flow control valves strategically placed along said conduit and a common engine control mechanism controlling the operation of said valves.

27. (Amended) The engine of Claim [26] 25, wherein said at least one compressor includes a first compressor, and further comprising:

a second compressor in fluid communication between said first compressor and said inlet port with which said compressor is in communication,

whereby at least part of the intake air is selectively compressed a second time prior to entering the cylinder;

wherein said means for [selectively] controlling includes means for [selectively] controlling the operation of said second compressor.

31. (Amended) An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, [two] first and second inlet ports through which air enters said cylinder [communicating between said cylinder and the source of air], and an exhaust port through which air is exhausted from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each said [intake] inlet port;

an exhaust valve selectively occluding said exhaust port;

a compressor in fluid communication between said source of air and one of said inlet ports;

at least one air cooler;

an air delivery network including[;]

conduit interconnecting [said] a source of air, said compressor, said air cooler, and said first inlet port[s], whereby air from the compressor is directed to the first inlet port;

[means for selectively controlling operation of said compressor to selectively generate a compressed air charge;]

[means for selectively] second conduit interconnecting a source of air and said second inlet port, [directing uncharged air to a first said inlet port and compressed air to a second said inlet port.]

whereby air at a first pressure is directed to the first inlet port and air at a second pressure, different from the first pressure, is directed to the second inlet port.

~~32~~. (Amended) The engine of Claim ~~25~~, wherein means are provided to [further increase the turbulence of the charge entering the cylinder and to] minimize backflow of the charge during the [slow] closure of the higher pressure intake valve[s].

33. (Amended) The engine of Claim 32 wherein the means to [increase turbulence] minimize backflow is a one-way valve located between the intake valve and the cylinder.

34. (Amended) In an internal combustion engine having a crankshaft driven by at least one piston moving through at least a compression stroke and an expansion stroke aided by combustion taking place within a cylinder, wherein the compression stroke results in the compressing of air within the cylinder, the improvement thereto comprising:

an external compression stage in which a secondary air charge is compressed outside the cylinder;

delivery conduit linking said external compression stage to the cylinder, with an intercooler through which said secondary air charge is selectively directed from said external compression stage;

two power cylinder intake ports with an intake valve in each port; [and]

[with] means for selectively controlling the external compression stage and said intake valves, and for selectively controlling the air charge characteristics selected from one or more of turbulence, density, pressure, temperature and the mean and peak pressure within said cylinder; and

means for directing low pressure air to a first power cylinder inlet port during the intake stroke of the piston and for directing [air] highly compressed air to a second power cylinder inlet port after said piston has reached bottom dead center.

35. (Amended) The improvement of Claim 34, further comprising a second external compressor in which said low pressure air charge is lightly compressed outside the cylinder and conduit directing said air charge from said second external compressor through an air cooler [directed] to the low pressure port of the power cylinder during the intake stroke.

37. (Amended) An internal combustion engine, comprising:

at least one ancillary compressor for compressing an air charge, said compressor having an outlet;

an intercooler through which [the] compressed air is [selectively] directed for cooling;

a plurality of power cylinders in which [the] compressed air in the presence of fuel is ignited and expanded;

a piston operable in each power cylinder and connected to a crankshaft by a connecting link for rotating the crankshaft in response to reciprocation of each piston;

a first transfer manifold connecting a low pressure air inlet with the power cylinders through which manifold the low pressure air is transferred to the power cylinders;

a first intake valve controlling admission of the low pressure air from said first transfer manifold to said power cylinders,

a transfer conduit communicating the compressor outlet [to a control valve and] to said intercooler;

a second transfer manifold communicating the intercooler with the power cylinders through which manifold the compressed air is transferred to enter the power cylinders;

an intake valve controlling admission of the compressed air from [the] said second transfer manifold to said power cylinders;

an exhaust valve controlling discharge of the exhaust gases from said power cylinders; and

means for selectively controlling operation of said compressor to operate in either a compressed mode generating a compressed air charge or a pass mode passing air therethrough without compressing and for selectively controlling the air charge characteristics selected from one or more of density, pressure, temperature, [and] mean pressure and peak pressure within said power cylinders after the low pressure charge has entered the power cylinders on the intake stroke and the piston has begun the compression stroke.

38. (Amended) An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, first and second inlet ports communicating between said cylinder and a source of air, and an exhaust port through which air is exhausted from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each said intake port;

an exhaust valve selectively occluding said exhaust port;

means for [selectively] directing air at a first pressure to said first inlet port and for directing air at a second pressure, different from said first pressure, to said second inlet port.

Please add the following new claims 39-51:

39. (New) An internal combustion engine, comprising:

an engine block defining at least one cylinder therein, first and second inlet ports communicating between said cylinder and a source of air, and an exhaust port through which air is exhausted from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each said intake port;

an exhaust valve selectively occluding said exhaust port; and

a first compressor directing air at a first pressure to said first inlet port and a second compressor directing air at a second pressure, different from said first pressure, to said second inlet port.

40. (New) An engine block defining at least one cylinder therein, first and second inlet ports communicating between said cylinder and source of compressed air, and an exhaust port through which air is [exhausted] expelled from said cylinder;

a piston movably mounted within said cylinder;

an intake valve selectively occluding each said intake port;

an exhaust valve selectively occluding said exhaust port;

an air delivery network including a first conduit path connecting said source of compressed air to said first inlet port, whereby air from said source is delivered to said first inlet port at a first pressure, a second conduit path connecting said source to said second inlet port, and a pressure regulator associated with said second conduit path, whereby air from said source is delivered at a second pressure, different from said first pressure, to said second inlet port.

41. (New) Engine of Claim 40, wherein said source of compressed air is source of compressed air with the heat of compression reduced.

42. (New) Engine of Claim 31, wherein said second conduit is open to the environment, whereby air at atmospheric pressure is directed to said second inlet port.

43. The engine of Claim 31, wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.

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~~44.~~ The engine of Claim ~~34,~~ wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.

45. The engine of Claim 37, wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.

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~~46.~~ The engine of Claim ~~38,~~ wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.

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~~47.~~ The engine of Claim ~~39,~~ wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.

48. The engine of Claim 40, wherein the compression stroke results in compressing of air within the cylinder, with means for managing air charge volumes to provide a compression ratio lower than the expansion ratio of the engine.